

Claims

1. A method for preparing free polyunsaturated fatty acids and their oxidation metabolites, wherein,
5 successively,
 - the production of polyunsaturated fatty acids and of their oxidation metabolites is stimulated, in a red alga, by the action of an
10 elicitor which is peptide, lipid or saccharide in nature, and then
 - the polyunsaturated fatty acids produced and also their oxidation metabolites are extracted.
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2. The method as claimed in claim 1, wherein the stimulation of the production of the polyunsaturated fatty acids and of their oxidation metabolites is obtained, in the case of the red
20 alga *Chondrus crispus*, by elicitation under the action of components of the green alga *Acrochaete operculata*.
3. The method as claimed in claim 2, wherein the elicitation is carried out by making use of an
25 extract of *Acrochaete operculata*, obtained by aqueous extraction under cold conditions or under hot conditions of the green alga ground in liquid nitrogen.
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4. The method as claimed in one of claims 1 to 3, wherein the extraction of the polyunsaturated fatty acids and of their oxidation metabolites is carried out by aqueous extraction of the alga
35 ground in liquid nitrogen, followed by extraction with organic solvent.